PROGRAMME REGULATIONS

New Zealand Certificate in Automotive Engineering (Level 3)

These regulations apply to the New Zealand Certificate in Automotive Engineering (Level 3, 120 credits) (NZCAE3) and come into force in Semester 2, 2017.

1. Admission Requirements

To be admitted to this programme, the applicant must have achieved the New Zealand Certificate in Educational Achievement (Level 1) in Mathematics, English, and Physics or General Science, or equivalent qualifications to entry in to this programme.
International applicants must meet one of the English language entry requirements.

- NZCEL (Level 3) with endorsement of General, Workplace or Academic
- IELTS Academic 5.5 with no band score lower than 5
- TOEFL score of 500 (essay 4 TWE)
- Cambridge FCE with a score of 50 or CAE with a score of 41
- Pearson Test of English (Academic) PToE with score of 36

2. Special Admission

Applicants must have:

a. Attained the age of 20 years on or before the first day of the semester in which study for the certificate is to commence; and

b. Provided sufficient evidence of aptitude or appropriate work or other life experience that would indicate a successful outcome in the qualification.

3. Discretionary Admission

In exceptional cases an applicant who does not meet the general admission requirements and who has not reached the age of 20 on or before the first day of the semester in which study for the certificate is to commence may apply for discretionary admission.
In assessing whether to grant discretionary admission in exceptional cases, the primary focus will be on the applicant's level of preparedness for study at the required level.

4. Selection Criteria

Applicants with high levels of achievement in NCEA Level 1 English, Maths, and Physics or General Science will be preferred candidates for entry to the Programme.
Applicants with low levels of achievement in NCEA Level 1 English, Maths, and Physics or General Science may be required to undertake a pre-entry diagnostic analysis to identify any extra support an applicant may require to enter the programme.

When the number of applications for admission exceeds the number of places available a selection process will be implemented. Those who have a reasonable chance of succeeding in the programme will be selected.

5. Requirements for the Award of the Qualification

For the award of the New Zealand Certificate in Automotive Engineering, the student must attain a minimum of 120 credits accumulated from the courses set out in Table 1.

1. On successful completion of all the courses as part of their full time study or,
2. achieving all the unit standards as listed for work based study or,
3. by combination of successful completion of courses and unit standards.

Course details

FULL TIME – ON CAMPUS

Table 1: Course Details

All courses are compulsory.

Course No.	Course Name	Credits	Pre-requisites	Co-requisites
Level 3 - Compulsory				
APTE3101	**Automotive Workshop Safety**	10	Nil	Nil
APTE3102	**Workshop Engineering Tools and Equipment - Compulsory**	15	Nil	Nil
APTE3103	**Engines and Cooling System**	15	Nil	Nil
APTE3104	**Engine Tuning and Fuel Systems**	10	Nil	Nil
APTE3105	**Automotive Brakes and Steering**	25	Nil	Nil
APTE3106	**Automotive Transmissions and Driveline Systems**	10	Nil	Nil
APTE3107	**Automotive Electrical Technology**	10	Nil	Nil
APTE3108	**Automotive Electronic and HVAC Systems**	25	Nil	Nil

FULL TIME ON CAMPUS SUMMATIVE ASSESSMENT

The New Zealand Certificate in Automotive Engineering will adopt a portfolio based assessment system to all theory knowledge and practical competency and will use online assessment where appropriate. Assessments are aligned to include the three steps of ability, action and competence.

Grade related criteria

Assessment for full time courses in this programme is on a four-point basis, as defined by Unitec policies.
All assessment events will be related to the four-point grading system and a grade 'C' or above for each assessment must be achieved for a pass grade to be awarded for the course.

Grade	Description	Credits Earned or not
A	Pass with distinction	Credits Earned
B	Pass with Merit	Credits Earned
C	Pass	Credits Earned
D	Fail	No Credits Earned

Work-based learning

Student undertaking work based learning as part of their traineeship will complete unit standards as per table below:

Table 2

Unit standard number	Unit standard title	Credits
	Compulsory introductory units	
3856	Identify emergency procedures in the motor and related industries	2
16113	Demonstrate knowledge of safe working practices in an automotive workshop	2
21858	Demonstrate good work habits and perform safe work practices in the motor and related industries	4
	Compulsory technical units	
229	Identify the general locations and functions of motor vehicle systems and main components	4
231	Demonstrate knowledge of the operation of two and four stroke petrol and diesel engines	4
233	Service a lead-acid automotive battery	2
234	Demonstrate knowledge of automotive starting and charging systems and their operation	4
235	Demonstrate knowledge of automotive ignition systems and their operation	4
239	Demonstrate knowledge of automotive manual transmissions	3
240	Demonstrate knowledge of petrol fuel systems	3
242	Change the fluid and bleed a brake hydraulic system	2
243	Carry out basic tuning on a four stroke petrol engine under supervision	4
918	Demonstrate knowledge of light vehicle final drive assembly operation	4
920	Describe the construction and operation of manual and semi-automatic transmissions used on light vehicles	4
3400	Check a four stroke petrol engine for condition using hand held test equipment	4
3877	Demonstrate knowledge of protecting vehicle electronics in the motor industry	2
5459	Demonstrate knowledge of automotive electronic fuel injection system operation, and fault diagnosis and repair	4
5466	Remove and replace light vehicle brake pads and shoes	2
15373	Demonstrate knowledge of automotive air conditioning	4
15446	Remove and replace a light vehicle engine cam belt	3

21670	Demonstrate knowledge of general engineering tasks in the motor industry	3
21671	Carry out general engineering tasks in the motor industry	4
21675	Demonstrate knowledge of automotive batteries	2
21676	Select test equipment and test an automotive electrical circuit	4
21680	Demonstrate knowledge of automotive lubricants and sealants	3
21684	Use a MIG welding plant in the motor industry	3
21685	Use an oxy-acetylene welding plant in the motor industry	3
21686	Demonstrate knowledge of automotive cooling systems	2
21688	Demonstrate knowledge of disassembling and reassembling a four stroke multi-cylinder engine	3
21689	Demonstrate knowledge of hydraulic brake fluid, fluid replacement, and brake bleeding procedures	2
21720	Demonstrate knowledge of motorcycle, car, light and heavy commercial vehicle braking systems	3
21721	Demonstrate knowledge of vehicle steering and suspension systems	2
21722	Balance wheels off a vehicle in the motor industry	2
21859	Select and use hand tools and workshop equipment for an automotive application	2
21869	Remove and replace road wheels in the motor industry	1
22799	Demonstrate safety precautions on vehicles fitted with air bags and/or seatbelt pre-tensioners	1
22800	Describe safe working practices and precautions on vehicles equipped with air bags and seatbelt pre-tensioners	2
24090	Demonstrate knowledge of diagnosing faults in engine management systems	1
24148	Demonstrate knowledge of engine management systems	3
24307	Demonstrate knowledge of vehicle driveline components	2
24410	Demonstrate knowledge of machining brake disc rotors and brake drums	1
24411	Machine brake disc rotors and brake drums	2
24564	Remove and replace steering and suspension components on motor vehicles or machines	3
29373	Demonstrate knowledge of automotive automatic transmissions	2

Work-based learning summative assessment

The New Zealand Certificate in Automotive Engineering will adopt a portfolio comprised of unit standards as listed under “Work based learning”. Health and Safety and sustainability will be considered as part of competency. The unit standard assessment will adopt a competency based grading system. Competence is demonstrated through applied theory in action within a commercial industry environment. Reflective practice is a key to demonstrating competence. Use of informatics are integral to assessment methodology.

Grade	Status
M	Merit pass – Student has fully demonstrated the knowledge, completed the task in a safe manner and completed the associated commercial documents.
P	Pass – Student has fully demonstrated the knowledge and completed the task in a safe manner.
NC	Not yet competent

Credit Recognition and Exemptions
Credit may be awarded in recognition of successful equivalent study, at the same or a higher level in the context of another programme.
Credit will not normally be awarded for successful study that took place more than 5 years prior to the date of first enrolment in the certificate.

Assessment of Prior Learning

Assessment of Prior Learning is available for all courses, using current Unitec policies and procedures.

Other Grades

Table 3: Administrative Grade Definitions

Grade	Meaning	Criteria
CR	Credit Recognition	Credit earned through Cross Credit from another Qualification and/or through the Assessment of Prior Learning.
DEF	Deferred	Where a Student can, with the approval of the Programme Framework Committee, complete a Course Assessment beyond the schedule date. Unless an exception to this is approved by the Programme Framework Committee, any Deferred Grade remaining on a student's record beyond a duration equal to that of the original course will be changed to the grade to which the Student would otherwise be entitled.
W	Withdrawn	The grade W (Withdrawn) is recorded if a Student withdraws from a Course after 10% of the scheduled Course duration and up to, or at, the date at which 75% of the scheduled Course has passed. No Credits earned.
DNC	Did not complete	The grade DNC (Did Not Complete) is recorded if a student has either withdrawn after 75% of the scheduled Course duration; or not attempted a compulsory item of Assessment within a Course. No Credits earned.

- Students may be given one of the above administrative grades for a course where appropriate:

Conditions applying to restricted passes
Restricted passes are not available for courses in this programme.

Late submission of assessments
a. The due dates for all summative assessment work will be notified in the course information.
b. Application for late submission of work for a good reason must be made to the Course Lecturer in a timely manner. Otherwise late work may be penalised.

6. Transitional Arrangements / Modified Programmes of Study

Candidates currently enrolled in programmes leading to the replaced Certificate in Automotive Engineering and Certificate in Applied Technology – Automotive, Autotronics who are unable to complete by 31 December 2021 shall transfer their existing achievement to this programme.
No existing candidates will be disadvantaged by these transition arrangements.